SOLAR PUMP (IRRIGATION)

Introduction

Solar pump is a useful device for irrigation. It works during day time and consumes no electricity or any fuel. On a sunny day discharge output of this pump is 1.40 lac liters (Maximum). When photovoltaic modules are exposed to sun it generates D.C. Power and with this power a 2 H.P. D.C. mono block pump operates. It is a very useful device for irrigation where water table is around 6-7 meters (20-25 ft.)

Benefits

1. No fuel is required to operate solar pump.
2. It can be operated and used for long period.
3. It is easy to maintain.
4. It is a non polluting system.

Components & specifications

1.	Solar P.V. Panel	1800 watt.
2.	Motor-pump set	2 H.P. Centrifugal D.C. Mono block.
3.	Operating Voltage	60 volt D.C.
4.	Maximum Suction Head	6-7 meters.
5.	Total Dynamic Head	10 meters.
6.	Bore well Size	100-150 mm diameter.
7.	Required Shadow free Area	100 Sq. meter
8.	Other Panel adjustment facility,	thrice a day towards sun's direction for better water output.

Average Discharge of pump (Per day)

Total Dynamic Head (m)	Water Output (Lit/day),Average
10	1.60 lac
15	1.50 lac
20	1.38-1.39 lac
25	1.14 lac

Cost

Solar Pump Irrigation

S.No.	**Sytem**	**Cost**	Particulars	for the year
1	Solar Pump (1800 watt D.C.Surface Pump)	444,540/-	Supply & installation withTwo years warranty	2008-09
2	Solar Pump (1800 watt D.C.Surface Pump)	505,540/-	Supply & installation withTwo years warranty and eight years AMC	2008-09

List of approved manufacturers

1. M/s Central Electronics Ltd.,Sahibabad,Ghaziabad
2. M/s REIL, Kanakpura Industrical Area, Rajasthan.

Achievements

1- No of Solar Pump (Irrigation) distributed under various programmes - 322